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21 March 1957
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INTELLIGENCE ADVISORY COMMITTEE

Validity Study of
NIE 11-6-54, Soviet Capabilities and Probable Programs
in the Guided Missile Field, 5 October 1954,
and its Supplement,
NIE 11-12-55, Soviet Guided Missile Capabilities and
Probable Programs, 20 December 1955

The attached validity study of NIE 11-6-54, "Soviet
Capabilities and Probable Programs in the Guided Missile Field,"
published 5 October 1954, and its Supplement, NIE 11-12-55,
"Soviet Guided Missile Capabilities and Probable Programs,"
published 20 December 1955, was noted by the IAC on 19 March
1957 (IAC-M-281, item 3 b).

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Secretary

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Probable Programs, 20 December 1955

1. Firm evidence is still extremely meager except in isolated cases, and our present estimate suffers many of the same limitations as did NIE 11-6-54. The fact that good correlation exists between certain findings in the present estimate and its predecessors is not a sound basis for establishing the validity of NIE 11-6-54. However, in this new and complex field, where positive intelligence is still minimal, the findings in NIE 11-6-54 are considered to have been basically sound with respect to concept, scientific and technical capability, and general trends of the Soviet guided missile program.

2. The importance of this field of intelligence warrants a more extensive presentation than usual of our examination for validity of those types of missile systems for which new intelligence has become available:

a. Surface-to-Air

(1) NIE 11-6-54 estimated that a 10-12 nautical mile system could be operational in 1954, which could carry a 600 pound warhead to an altitude of 50,000 feet. This system could be improved in 1955 to engage targets at 15-17 nautical miles, and by 1958 could have a maximum range of 25 nautical miles at 60,000 feet altitude.

(2) NIE 11-12-55 did not change the above, but stated additionally that this system was being installed around Moscow and had been at least partially operational since 1955, predicting that all launching sites would be operational by the end of 1956.

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(3) NIE 11-5-57 has not changed these estimates, except to estimate that the 25 nautical mile range at 60,000 feet altitude has now been reached--one year earlier than predicted in NIE 11-6-54. An estimate is also made that all the sites around Moscow are probably now operational.

(4) In this missile type, NIE 11-6-54, as supplemented, is considered to have been generally valid.

(b) Air-to-Surface

(1) NIE 11-6-54 and its supplement both estimated that the USSR could have a subsonic missile of 50 nautical mile range for primary use against ship targets operational in 1956-1957.

(2) NIE 11-5-57 cites evidence that a missile of this type has reached at least final flight test stage.

(3) In this missile type, NIE 11-6-54 is considered to have been generally valid.

(c) Surface-to-Surface (Submarine Launched)

(1) NIE 11-6-54 and its supplement estimated that the USSR could have a subsonic, cruise-type missile of 500 nautical miles maximum range for use with a submarine in 1955. Several guidance systems were estimated as possible and the accuracies would vary with the guidance system used.

(2) NIE 11-5-57 did not change the above estimate.

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(3) The amount of evidence obtained has been meager. It tends to strengthen the previous estimates, but does not permit an evaluation of their validity.

d. Surface-to-Surface (Ballistic)

(1) NIE 11-6-54 estimated that the USSR could have in 1954 missile systems of this type operational to ranges of 350 and 500 nautical miles. Shorter range missiles of unspecified ranges were also estimated. A missile of 900 nautical miles range with a 3000 pound payload was estimated for first operational use in 1957, or, at the earliest possible date, in 1955.

(2) NIE 11-12-55 estimated that the USSR was not developing a 500 nautical mile ballistic missile. It also changed the estimated range of the 900 nautical mile missile to 850-900 nautical miles and its first operational date to 1955-1956.

(3) On the basis of new intelligence, NIE 11-5-57 reiterates the previous estimate on the 350 nautical mile missile except that the missile accuracy is believed better. Shorter range missiles are now specified as 75 nautical miles and 175-200 nautical miles. New intelligence leads us to believe that the previously estimated 850-900 n.m. missile now has a maximum range of 700 n.m., and refinements in our calculations indicate that this missile carries a 6,000 pound payload.

(4) NIE 11-6-54 and its supplement are considered to have been generally valid regarding Soviet capabilities to develop these missile types, but they incorrectly estimated that the USSR intended to maximize its range capabilities in the 500-900 nautical mile range band.